



# UNITED STATES PATENT AND TRADEMARK OFFICE

*[Handwritten signature]*  
UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/625,882	07/24/2003	Marc Beauregard	15493-1US-1 MG/al	9291
20988	7590	03/15/2006	EXAMINER	
OGILVY RENAULT LLP 1981 MCGILL COLLEGE AVENUE SUITE 1600 MONTREAL, QC H3A2Y3 CANADA			WOITACH, JOSEPH T	
			ART UNIT	PAPER NUMBER
			1632	
DATE MAILED: 03/15/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/625,882	BEAUREGARD ET AL.	
	<b>Examiner</b> Joseph T. Woitach	<b>Art Unit</b> 1632	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_.
- 2a) This action is FINAL.                  2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_ is/are allowed.
- 6) Claim(s) \_\_\_\_ is/are rejected.
- 7) Claim(s) \_\_\_\_ is/are objected to.
- 8) Claim(s) 1-28 are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_.
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_.

## **DETAILED ACTION**

This application filed July 24, 2003, is a CIP of 10/272,929, filed 10/18/2002, which claims benefit of 60/329,759, filed 10/18/2001.

Claims 1-28 are pending.

### *Election/Restrictions*

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 2-7, drawn to a method of improving supply of one essential amino acid comprising administering SEQ ID NO: 1 or a fragment thereof wherein the sequence contains at least one substitution, classified in class 514, subclass 44.
- II. Claims 2-7, drawn to a method of improving supply of one essential amino acid comprising administering SEQ ID NO: 2 or a fragment thereof wherein the sequence contains at least one substitution, classified in class 514, subclass 44.
- III. Claims 2-7, drawn to a method of improving supply of one essential amino acid comprising administering SEQ ID NO: 3 or a fragment thereof wherein the sequence contains at least one substitution, classified in class 514, subclass 44.
- IV. Claims 2-7, drawn to a method of improving supply of one essential amino acid comprising administering SEQ ID NO: 4 or a fragment thereof wherein the sequence contains at least one substitution, classified in class 514, subclass 44.
- V. Claims 2-7, drawn to a method of improving supply of one essential amino acid comprising administering SEQ ID NO: 5 or a fragment thereof wherein the sequence contains at least one substitution, classified in class 514, subclass 44.

- VI. Claims 9-15, 26-28, drawn to a protein encoded by SEQ ID NO: 1 or a fragment thereof wherein the sequence contains at least one substitution, classified in class 530, subclass 350.
- VII. Claims 9-15, 26-28, drawn to a protein encoded by SEQ ID NO: 2 or a fragment thereof wherein the sequence contains at least one substitution, classified in class 530, subclass 350.
- VIII. Claims 9-15, 26-28, drawn to a protein encoded by SEQ ID NO: 3 or a fragment thereof wherein the sequence contains at least one substitution, classified in class 530, subclass 350.
- IX. Claims 9-15, 26-28, drawn to a protein encoded by SEQ ID NO: 4 or a fragment thereof wherein the sequence contains at least one substitution, classified in class 530, subclass 350.
- X. Claims 9-15, 26-28, drawn to a protein encoded by SEQ ID NO: 5 or a fragment thereof wherein the sequence contains at least one substitution, classified in class 530, subclass 350.
- XI. Claims 17-22, drawn to a nucleotide sequence of SEQ ID NO: 1 or a fragment thereof wherein the sequence contains at least one substitution, classified in class 536, subclass 23.1.
- XII. Claims 17-22, drawn to a nucleotide sequence of SEQ ID NO: 2 or a fragment thereof wherein the sequence contains at least one substitution, classified in class 536, subclass 23.1.

- XIII. Claims 17-22, drawn to a nucleotide sequence of SEQ ID NO: 3 or a fragment thereof wherein the sequence contains at least one substitution, classified in class 536, subclass 23.1.
- XIV. Claims 17-22, drawn to a nucleotide sequence of SEQ ID NO: 4 or a fragment thereof wherein the sequence contains at least one substitution, classified in class 536, subclass 23.1.
- XV. Claims 17-22, drawn to a nucleotide sequence of SEQ ID NO: 5 or a fragment thereof wherein the sequence contains at least one substitution, classified in class 536, subclass 23.1.
- XVI. Claims 24-25, drawn to a method of improving the properties of a polypeptide encoded by SEQ ID NO: 1 or a fragment thereof wherein the sequence contains at least one substitution, classified in class 536, subclass 23.4.
- XVII. Claims 24-25, drawn to a method of improving the properties of a polypeptide encoded by SEQ ID NO: 2 or a fragment thereof wherein the sequence contains at least one substitution, classified in class 536, subclass 23.4.
- XVIII. Claims 24-25, drawn to a method of improving the properties of a polypeptide encoded by SEQ ID NO: 3 or a fragment thereof wherein the sequence contains at least one substitution, classified in class 536, subclass 23.4.
- XIX. Claims 24-25, drawn to a method of improving the properties of a polypeptide encoded by SEQ ID NO: 4 or a fragment thereof wherein the sequence contains at least one substitution, classified in class 536, subclass 23.4.

XX. Claims 24-25, drawn to a method of improving the properties of a polypeptide encoded by SEQ ID NO: 5 or a fragment thereof wherein the sequence contains at least one substitution, classified in class 536, subclass 23.4.

Claim 1 links inventions I-V, claim 8 links inventions VI-X, claim 16 links inventions XI-XV, claim 23 links inventions XV-XX. The restriction requirement between the linked inventions is subject to the nonallowance of the linking claim(s), claim 1. Upon the allowance of the linking claim(s), the restriction requirement as to the linked inventions shall be withdrawn and any claim(s) depending from or otherwise including all the limitations of the allowable linking claim(s) will be entitled to examination in the instant application. Applicant(s) are advised that if any such claim(s) depending from or including all the limitations of the allowable linking claim(s) is/are presented in a continuation or divisional application, the claims of the continuation or divisional application may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Where a restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. See *In re Ziegler*, 44 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP 804.01.

The inventions are distinct, each from the other because of the following reasons:

Inventions I-V are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different designs, modes of operation, and effects (MPEP § 802.01 and § 806.06). In the instant case, the different inventions encompass the use of distinct nucleic acid sequences.

Inventions VI-X are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different designs, modes of operation, and effects (MPEP § 802.01 and § 806.06). In the instant case, the different inventions encompass distinct protein sequences.

Inventions XI-XV are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different designs, modes of operation, and effects (MPEP § 802.01 and § 806.06). In the instant case, the different inventions encompass distinct nucleic acid sequences.

Inventions XVI-XX are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different designs, modes of operation, and effects (MPEP § 802.01 and § 806.06). In the instant case, the different inventions encompass the use of distinct nucleic acid sequences.

Inventions X-XV and I-V, XVI-XX are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product. See MPEP § 806.05(h). In the instant case the product can be made chemically and the nucleic acid can be used as a probe instead of the methods set forth.

Inventions VI-X and XI-XV are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different designs, modes of operation, and effects (MPEP § 802.01 and § 806.06). In the instant case, the different inventions encompass distinct products nucleic acid sequences and polypeptides.

Because these inventions are independent or distinct for the reasons given above and have acquired a separate status in the art in view of their different classification, and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the

Art Unit: 1632

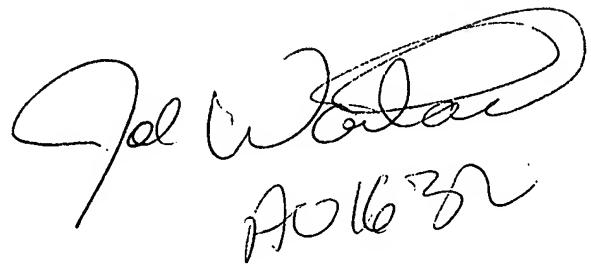
application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Woitach whose telephone number is (571) 272-0739.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ram Shukla, can be reached at (571) 272-0735.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group analyst Dianiece Jacobs whose telephone number is (571) 272-0532.

Joseph T. Woitach



A handwritten signature in black ink, appearing to read "Joseph T. Woitach". Below the signature, the number "1632" is handwritten.